[54] OPTICAL ANGLE MEASURING SYSTEM

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[58] Field of Search .... 33/1 C, 1 N, 1 L; 356/150, 151, 71, 162, 167, 138, 152; 250/219 Q, 219 QA, 236

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[57] **ABSTRACT**

An optical system is disclosed for automatically measuring corner angles of graphic patterns. In a preferred embodiment, the image of a graphic pattern is illuminated by a light source, slowly rotated by a rotating K-mirror assembly and rapidly scanned by a rotating mirror drum which sequentially projects predetermined incremental portions of the graphic pattern through a slit into a light sensor for detection. An angle mark generator is utilized to generate angle marks as the K-mirror assembly rotates. A very steep transient pulse or wavefront is generated by the light sensor whenever either edge of the corner angle of the pattern is parallel to the slit. A digital processor is responsive to the steep transient pulses and the angle marks for detecting the angular difference, during one revolution of the image, between consecutive appearances of two steep transient pulses.

16 Claims, 12 Drawing Figures